

REMARKS

Claims 5, 8, 11, 13, 26, and 28 are amended. Claims 1-4, 22-25, and 37-40 are cancelled without prejudice. Claims 41 and 42 are added. Claims 5-21, 26-36, 41, and 42 are currently pending in the application.

The Examiner rejected claims 22, 24, 25, 37, 39 and 40 under 35 U.S.C. § 102(b) as being anticipated by Kochi (USPN 2002/0018131). The Examiner rejected claims 23 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Kochi (US 2002/0018131) in view of Bayer (3,971,065). These rejections are moot since these claims are cancelled.

The Examiner rejected claims 5 and 8 under 35 U.S.C. § 102(e) as being anticipated by Sakurai (USPN 6,784,928). The Examiner rejected claims 11-21 and 26-36 under 35 U.S.C. § 103(a) as being unpatentable over Berger et al. (USPN 4,453,177; hereinafter “Berger”) in view of Fossum et al. (USPN 2003/0117520; hereinafter “Fossum 2003”). The Examiner rejected claims 6 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Sakurai in view of Nam (USPN 7,408,443). The Examiner rejected claims 7 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Sakurai in view of Fossum et al. (USPN 5,949,483; hereinafter “Fossum ‘483”). Applicant requests reconsideration of the application.

102 Rejection

In order for a reference to anticipate an invention, each and every element of the claimed invention must be found in a single reference. “The identical invention must be shown in as complete detail as is contained in the ... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). “The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required.” In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). See also MPEP § 2131.

Sakurai generates a difference signal by reading out noise and sensor signals from pixels in two rows. This is clearly shown in figure 6B and described in the description in column 7, line 13 to column 8, line 8. In fact, Sakurai expressly states “only the operation of reading pixels of the first and second rows and first and second columns will be described.” (col. 7, lines 13-

15). The description after this sentence states the noise signals in the pixels in the first column are read into capacitors C11 and C13 while the noise signals in the pixels in the second column are read into capacitors C21 and C23. (See col. 7, lines 20-27). Thus, the noise signals from the pixels in the first and second rows in the first column are read into capacitors C11 and C13 and the noise signals from the pixels in the first and second rows in the second column are read into capacitors C21 and C23.

Later, Sakurai states the sensor signals in the pixels in the first column are read into capacitors C12 and C14 while the sensor signals in the pixels in the second column are read into capacitors C22 and C24. (See col. 7, lines 32-40). Thus, the sensor signals from the pixels in the first and second rows in the first column are read into capacitors C12 and C14 and the sensor signals from the pixels in the first and second rows in the second column are read into capacitors C22 and C24.

Independent claims 5 and 8, as amended, recite “a color difference readout signal is output when a reset signal and a light signal for one color in a row are stored in at least one column circuit and a reset signal and a light signal for a different color in the same row are stored in the same at least one column circuit.” Nothing found in Sakurai teaches or suggests this aspect of the claimed invention. Therefore, for at least the following reason, Sakurai does not anticipate Applicant’s independent claims 5 and 8.

103 Rejection

Berger and Fossum 2003

Independent claims 11 and 26 recite “reading out two or more samples of the same signal from each light receiving element in the at least one row”, and “wherein the two or more samples of the same signal are concurrently stored in different individual signal storage elements.” The Examiner states on page 10 of the May 14, 2009 office action that Berger does not teach each storage bank having enough individual storage elements to store the signals from at least one row of light receiving elements in the array, and that multiple samples of each signal are concurrently stored in different individual signal storage elements. The Examiner then argues Fossum 2003 discloses the use of a storage bank that concurrently stores multiple samples of each signal from at least one row of light

receiving elements in different individual signal storage elements within a single storage bank.

Fossum 2003, however, uses one register to store signals from a first image capture having a short exposure and uses the other register to store signals from a first image capture having a longer exposure. The signals from the short exposure image capture are different signals from the signals in the long exposure image capture. Unlike Fossum 2003, Applicant's claimed invention stores multiple samples of the same signal (e.g., "two samples of a pixel value in each row of sensor data")(page 8, line 13).

Based on the foregoing, Applicant respectfully submits the combination of Berger and Fossum 2003 does not teach or suggest "reading out two or more samples of the same signal from each light receiving element in the at least one row", and "wherein the two or more samples of the same signal are concurrently stored in different individual signal storage elements." Therefore, for at least the following reason, the combination of Berger and Fossum 2003 does not render Applicant's independent claims 11 and 26 obvious.

"If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious." In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Claims 12-21 depend from independent claim 11, while claims 27-36 depend from independent claim 26. Since Berger and Fossum 2003 do not render claims 11 and 26 obvious, dependent, claims 12-21 and 27-36 are also not obvious in view of Berger and Fossum 2003.

Sakurai and Nam

Applicant's remarks with respect to Sakurai apply to this rejection as well. Sakurai does not teach or suggest "a color difference readout signal is output when a reset signal and a light signal for one color in a row are stored in at least one column circuit and a reset signal and a light signal for a different color in the same row are stored in the same at least one column circuit." And Nam does not make up for the deficiencies of Sakurai. Therefore, based on the foregoing, Applicant respectfully submits the combination of Sakurai and Nam does not render independent claims 5 and 8 obvious.

“If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious.” In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Claim 6 depends from independent claim 5, while claim 9 depends from independent claim 8. Since Sakurai and Nam do not render claims 5 and 8 obvious, dependent claims 6 and 9 are also not obvious in view of Sakurai and Nam.

Sakurai and Fossum ‘483

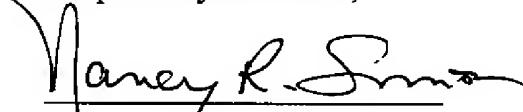
Applicant’s remarks with respect to Sakurai apply to this rejection as well. Sakurai does not teach or suggest “a color difference readout signal is output when a reset signal and a light signal for one color in a row are stored in at least one column circuit and a reset signal and a light signal for a different color in the same row are stored in the same at least one column circuit.” And Fossum ‘483 does not make up for the deficiencies of Sakurai. Therefore, based on the foregoing, Applicant respectfully submits the combination of Sakurai and Fossum ‘483 does not render independent claims 5 and 8 obvious.

“If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious.” In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Claim 7 depends from independent claim 5, while claim 10 depends from independent claim 8. Since Sakurai and Fossum ‘483 do not render claims 5 and 8 obvious, dependent claims 7 and 10 are also not obvious in view of Sakurai and Fossum ‘483.

In view of the foregoing it is respectfully submitted that the claims in their present form are in condition for allowance and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees in connection with this communication to Deposit Account No. 05-0225.

Respectfully submitted,


Attorney for Applicant(s)
Registration No. 36,930

Nancy R. Simon/phw
Rochester, NY 14650
Telephone: 585-588-4219